



JC10 Rec'd PCT/PTO 31 JAN 2002

PATENTS

#5

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of  
Tor JOHANSSON

Serial No. 09/980,494  
(PCT/FI00/00487)

BOX PCT

Filed December 4, 2001

BREATHABLE THERMOPLASTIC POLYMER  
CASING FOR THE MANUFACTURE OF  
MEAT PRODUCTS

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents

Washington, D.C. 20231

Sir:

In compliance with Rules 1.97 and 1.98, and in fulfillment of the duty of disclosure under Rule 1.56, the following documents, copies of which are attached to this statement, are made of record on the enclosed sheet.

A concise explanation of the relevance of the following items is that we are advised by our client that these references were discovered during any searches they or their client had made, or that they were considered in the preparation of the application:

EP 850567, U.S. 4,780,326, U.S. 3,935,320, EP 378015, EP 688826, EP 737709, EP 803348, WO 9826004, EP 829506, EP 842969, WO 9907769, EP 848019, EP 476963, EP 91800, EP 613919. Apart from the last of these (which is in English), concise descriptions of the relevance are given in the opening pages of the present specification.

In addition, the remaining documents, copies of which are attached to this statement, are also made of record on the enclosed sheet.

A concise explanation of the relevance of these latter items is that we are advised by our client that these references were cited by the Finnish Patent Office in the corresponding Finnish application Serial No. 991280 and/or the corresponding International application No. PCT/FI00/00487. Copies of the Finnish Official Action and the International Search Report in which they were cited are attached hereto. An English translation of the Finnish Official Action is also attached hereto.

For the Examiner's convenience and greater understanding of certain of these references, U.S. counterparts are filed herewith as follows.

<u>Foreign Reference</u>	<u>U.S. Counterpart</u>
EP 0848019	5,959,055
FI 92169	4,892,765
EP 378015	5,506,024
EP 688826	5,800,928
EP 737709	5,888,597
EP 842969	5,959,042

Respectfully submitted,

YOUNG & THOMPSON

By



Robert J. Patch  
Attorney for Applicant  
Registration No. 17,355  
745 South 23rd Street  
Arlington, VA 22202  
Telephone: 703/521-2297

January 31, 2002

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.  
FI991280/AH

SERIAL NO.  
09/980,494

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

(37 CFR 1.98(b))

APPLICANT  
Tor JOHANSSON

FILING DATE  
December 4, 2001

GROUP

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	5,959,055	9/99	Le Blevec et al.			
	AB	5,959,042	9/99	Bouilloux et al.			
	AC	5,888,597	3/99	Frey et al.			
	AD	5,840,807	11/98	Frey et al.			
	AE	5,800,928	11/98	Fischer et al.			
	AF	5,506,024	4/96	Flesher			
	AG	4,892,765	1/90	Hisazumi et al.			
	AH	4,780,326	10/88	Stemmler et al.			
	AI	3,935,320	1/76	Chiu et al.			
	AJ						
	AK						

**FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION**

		DOCUMENT NO.	PUBL. DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB CLASS	TRANSLATION YES NO
	AL	850 567	7/98	European			
	AM	848 019	6/98	European			U.S. counterpart
	AN	842 969	5/98	European			U.S. counterpart
	AO	829 506	3/98	European			English abstract
	AP	803 348	10/97	European			

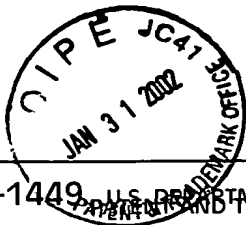
**OTHER DOCUMENTS (including Author, Title, Date, Relevant Pages, Place of Publication)**

	AR	
	AS	
	AT	

**EXAMINER**

**DATE CONSIDERED**

**EXAMINER:** Initial citation considered. Draw line through citation if not in conflict and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449, U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
FI991280/AHSERIAL NO.  
09/980,494**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

(37 CFR 1.98(b))

APPLICANT  
Tor JOHANSSONFILING DATE  
December 4, 2001

GROUP

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

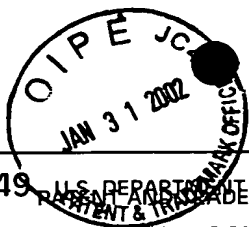
**FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION**

		DOCUMENT NO.	PUBL. DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB CLASS	TRANSLATION YES NO
	AL	737 709	10/96	European			U.S. counterpart
	AM	688 826	12/95	European			U.S. counterpart
	AN	613 919	9/94	European			
	AO	476 963	3/92	European			
	AP	378 015	7/90	European			U.S. counterpart

**OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)**

	AR	
	AS	
	AT	

**EXAMINER****DATE CONSIDERED****EXAMINER:** Initial citation considered. Draw line through citation if not in compliance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE  
PATENT & TRADEMARK OFFICEATTY. DOCKET NO.  
FI991280/AHSERIAL NO.  
09/980,494**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

(37 CFR 1.98(b))

APPLICANT  
Tor JOHANSSONFILING DATE  
December 4, 2001

GROUP

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION**

		DOCUMENT NO.	PUBL. DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB CLASS	TRANSLATION YES NO
	AL	091 800	10/83	European			
	AM	92169	6/94	Finland			U.S. counterpart
	AN	99/12735	3/99	International			
	AO	99/07769	2/99	International			
	AP	98/26004	6/98	International			

**OTHER DOCUMENTS (including Author, Title, Date, Relevant Pages, Place of Publication)**

	AR	
	AS	
	AT	

**EXAMINER****DATE CONSIDERED**

**EXAMINER:** Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
FI991280/AHSERIAL NO.  
09/980,494INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(37 CFR 1.98(b)) (Use several sheets if necessary)

APPLICANT  
Tor JOHANSSONFILING DATE  
December 4, 2001

GROUP

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

	DOCUMENT NO.	PUBL. DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB CLASS	TRANSLATION YES NO
AL	98/19551	5/98	International			English abstract
AM						
AN						
AO						
AP						

## OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

AR	
AS	
AT	

EXAMINER

DATE CONSIDERED

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**NATIONAL BOARD OF PATENTS  
AND REGISTRATION**

**OFFICIAL ACTION**

January 17, 2000

Forssén & Salomaa Oy  
Yrjönkatu 30  
00100 Helsinki

---

Patent Application No.	991280
Class:	A22C IAB
Applicant:	Eriksson Capital Ab
Agent:	Forssén & Salomaa Oy
Agent's ref.:	AH/TJ

Time limit:	July 17, 2000
-------------	---------------

The number and the class of the patent application shall be mentioned in your response to the National Board of Patents and Registration

---

The title in the application document "A breathable polymer casing for stuffing food products" has been translated as "hengittävä polymeerisuoli elintarvikkeiden pakkaamiseen" ("breathable polymer skin for stuffing of food products"). For this reason, the Official Action deals with a "breathable polymer skin and/or casing suitable for stuffing of food products". (The English language expression might also be understood as meaning a "polymer skin and/or casing suitable for stuffable food products"?).

The breathable polymer skin and/or casing for stuffing food products, defined in the claims, does not meet the requirements set on a patentable invention, so it is not possible to allow the present claims:

The claims are broad and indefinitely formulated, and the claims do not state clearly what in it constitutes the invention (note § 8 of the Patents Act).

The skin/casing of the invention defined in claims 1 and 14 has an MVTR value of over 500 g/m<sup>2</sup>/24h. If the invention is based on this characteristic feature, the embodiment examples do not describe, however, a single MVTR value which would represent the casing in accordance with the invention or that any values of comparison with a non-inventive casing would have been presented. Thus, the polymer casing in accordance with the invention is defined in the claim more broadly than it is possible to consider justified in view of the embodiment examples (point 2 of § 5 of the Patent Rules). The weight loss values of the example sausages described in the embodiment examples cannot be considered to correspond to MVTR values.

On what, in actual fact, is the inventive step of the breathable polymer skin/casing based?

The claims must recite the special features which are necessary for achieving the intended effect (§ 11 of the Patent Rules).

In addition, it is further pointed out that the present claims are non-uniform (§ 10 of the Patents Act). The breathable polymer skin and/or casing set forth in the claims and well as its use and, on the other hand, the method for manufacturing the breathable polymer skin and/or casing are regarded as mutually independent inventions, i.e. as solutions for mutually independent problems.

Inventions are considered to be dependent on one another if there is a technical connection between all the inventions so that they have in common one or more identical or similar technical special features (§ 16 of the Patent Decree). This is not sufficiently clear from the present claims.

Despite the non-uniformity found in the claims, examination was nevertheless carried out:

In order for a patent to be granted it is required that the invention is new and differs essentially from the prior art (§ 2 of the Patents Act).

The breathable polymer skin and/or casing for stuffing food products, defined in the claims and comprising thermoplastic polymer containing polyether chains and having a moisture vapour transmission rate value of over 500 g/m<sup>2</sup>/24h, is prior known from the following documents:

1) US patents 5,840,807 (C08G 63/00) and 5,888,597 (B29D 22/00): The documents disclose a polymer film which is suitable for packaging food products, such as fruit and meat, and which is based on a polyamide-polyether block polymer. It is stated that the permeability of the film to water vapour is 2000–25000 g/m<sup>2</sup>/24h. The documents disclose a thermoplastic polymer film fully identical with the one described in the application.

2) WO application publication 99/07769 (C08L 71/02): a cover composed of a polyamide-polyether polymer film (for fruit), (in particular, page 3, lines 12-22); MVTR value 1200 g/m<sup>2</sup>/24h (page 11, examples).

3) EP application publication 803 348 (B32B 27/08): A polyamide-polyether block polymer film suitable for packaging food products; MVTR value 1000 g/m<sup>2</sup>/24h by the JIS Z0208 method.

4) EP application publication 848 019 (C08F 210/02): A polymer film containing polyether chains and suitable for packaging food products; MVTR value 2121–10000 g/m<sup>2</sup>/24h (Table 2, Examples 6 and 6a).

5) WO application publication 99/12735 (B32B 27/34): ): A layered polymer cover also containing polyether chains (claim 5) and suitable for packaging food products. MVTR values 100-1000 g/m<sup>2</sup>/24h.

6) FI laid-open publication 92169 (B32B 27/08): A laminate film composed of different polymer layers and suitable to packaging meat products, such as sausages.

Even though documents 1-5 do not particularly mention that that the film is suitable specifically for stuffable food products, as described in the present patent application (sausages), this is, however, not considered to constitute any essential difference with respect to the above-mentioned documents 1-6, the polymer films described in them relating to packaging of food products after all. This may be considered to represent so close a technical field that it would not be surprising that a person skilled in the art uses a polymer film which is known from the prior art and composed of polyamide-polyether blocks and which has an MVTR value exceeding 500 g/m<sup>2</sup>/24h as a cover film/skin for stuffable food products.



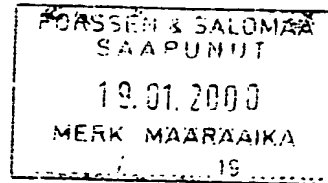


17.1.2000

Forssén &amp; Salomaa Oy

Yrjönkatu 30

00100 Helsinki



Patenttihakemus nro: 991280  
Luokka: A22C IAB  
Hakija: Eriksson Capital Ab  
Asiamies: Forssén & Salomaa Oy  
Asiamiehen viite: AH/TJ

Määräpäivä: 17.07.2000

Patenttihakemuksen numero ja luokka on mainittava kirjelmässänne PRH:lle

Hakemuskirjassa oleva nimitys "A breathable polymer casing for stuffing food products" on käännetty "hengittävä polymeerisuoli elintarvikkeiden pakkaamiseen". Tämän vuoksi välipäätöksessä käsitellään "elintarvikkeiden pakkaamiseen soveltuvaa hengittävää polymeerisuolta ja/tai -kalvoa". (Englanninkielisen ilmauksen voisi myös mieltää "täytettävälle ruokatavaroille soveltuva hengittävä polymeerisuoli ja/tai -kalvo"?).

Patenttivaatimuksissa määritelty hengittävä polymeerisuoli ja/tai -kalvo elintarvikkeiden pakkaamiseen ei täytä patentoitavalle keksinnölle asetettuja vaatimuksia, joten nykyisten vaatimusten hyväksyminen ei ole mahdollista:

Vaatimukset ovat laajat ja epämääräisesti ilmaistut, eikä vaatimuksista tule täsmällisesti ilmi se, mikä siinä on keksintönä (huom. PL 8§).

Vaatimuksissa 1 ja 14 määritelty keksinnön mukainen suoli/kalvo omaa MVTR-arvon yli 500 g/m<sup>2</sup>/24h. Jos keksintö perustuu tähän ominaispiirteeseen, sovellutusesimerkeissä ei ole kuitenkaan esitetty yhtään MVTR-arvoa mikä kuvaisi keksinnön mukaista kalvoa tai että olisi esitetty vertailuarvoja ei-keksinnön mukaiseen kalvoon. Näin ollen keksinnön mukainen polymeerikalvo on määritelty vaatimuksessa laajemmin, kuin mitä sovellutusesimerkit huomioon ottaen voidaan pitää perusteltuina (PM 5§, 2. kohta). Sovellutusesimerkeissä esitettyjä esimerkki-makkaroiden painon vähenemisarvoja ei voida pitää vastineena MVTR-arvoille.

Mihin itseasiassa vaatimuksissa määritetyn hengittävän polymeerisuolen/-kalvon keksinnöllisyys perustuu?

Vaatimuksessa on esitettävä ne erityispiirteet, jotka ovat välttämättömät tarkoitetun vaikutuksen aikaansaamiseksi (PM 11§).

Lisäksi vielä huomautetaan, että nykyiset vaatimukset ovat epäyhtenäiset (PL 10§). Vaatimuksissa esitettyä hengittävää polymeerisuolta ja/tai kalvoa sekä tämän käyttöä ja toisaalta menetelmää hengittävän polymeerisuolen ja/tai kalvon valmistamiseksi pidetään toisistaan riippumattomina keksintöinä, ts. ratkaisuina toisistaan riippumattomiin ongelmiin.

Keksintöjen katsotaan olevan toisistaan riippuvaisia, jos kaikkien keksintöjen välillä on tekninen yhteys siten, että niille on yhteistä yksi tai useampi samanlainen tai vastaavanlainen tekninen erityispiirre (PA 16§). Nykyisistä vaatimuksista tämä ei tule riittävästi esille.

Huolimatta vaatimuksissa esiintyvistä epäyhtenäisyydestä, uutuustutkimus kuitenkin suoritettiin:

Patentoinnin edellytyksenä on, että keksintö on uusi ja eroaa olennaisesti ennestään tunnetusta tekniikasta (PL 2§).

Patenttivaatimuksissa määritelty hengittävä polymeerisuoli ja/tai -kalvo elintarvikkeiden pakkaamiseen, joka koostuu polyeetteriketjuja sisältävästä termoplastisesta polymeeristä, sekä omaa vesihöyryn siirtymänopeusarvon yli 500 g/m<sup>2</sup>/24h, on ennestään tunnettu seuraavista julkaisuista:

1) US patenttijulkaisut 5 840 807 (C08G 63/00) ja 5 888 597 (B29D 22/00): Julkaisuista tunnetaan ruokatavaroiden, kuten hedelmien ja lihan, pakkaamiseen soveltuva polymeerikalvo, joka perustuu polyamidi-polyeetteri blokkipolymeeriin. Kalvon vesihöyryn läpäisevyys ilmoitetaan olevan 2000-25000 g/m<sup>2</sup>/24h. Julkaisuista tunnetaan täysin vastaava termoplastinen polymeerikalvo, kuin hakemuksessa on esitetty.

2) WO hakemusjulkaisu 99/07769 (C08L 71/02): polyamidi-polyeetteri polymeerikalvosta koostuva päällys (hedelmille), (erityisesti s.3, r.12-22); MVTR-arvo 1200 g/m<sup>2</sup>/24h (s.11, esimerkit).

3) EP hakemusjulkaisu 803 348 (B32B 27/08): Ruokatavaroiden pakkaamiseen soveltuva polyamidi-polyeetteri blokkipolymeeri-kalvo; MVTR-arvo 1000 g/m<sup>2</sup>/24h JIS Z0208-menetelmällä.

4) EP hakemusjulkaisu 848 019 (C08F 210/02): Ruokatavaroiden pakkaamiseen soveltuva polyeetteriketjuja sisältävä polymeeri-kalvo; MVTR-arvo 2121-10000 g/m<sup>2</sup>/24h (taulukko 2, esim. 6 ja 6a).

5) WO hakemusjulkaisu 99/12735 (B32B 27/34): Ruokatavaroiden pakkaamiseen soveltuva kerroksittainen, myös polyeetteriketjuja (vaatimus 5) sisältävä polymeeripäällys. MVTR-arvot 100-1000 g/m<sup>2</sup>/24h.

6) FI kuulutusjulkaisu 92169 (B32B 27/08): Lihatuotteiden, kuten makkaroiden pakkaamiseen soveltuva eri polymeerikerroksista koostuva laminaattikalvo.

Vaikka julkaisuissa 1-5 ei erityisesti mainita kalvon soveltuvan juuri täytettäville ruokatavaroille kuten eo. hakemuksessa on esitetty (makkarat), sen ei kuitenkaan katsota muodostavan olennaista eroa em. julkaisuihin 1-6 nähden, joissa esitetyt polymeerikalvot kuitenkin kohdistuvat ruokatavaroiden pakkaamiseen. Tämän voidaan katsoa olevan niin läheistä teknistä alaa, ettei alan ammattimiehelle olisi yllätyksellistä käyttää tekniikan tasosta tunnettua polyamidi-polyeetteriblokeista koostuvaa polymeerikalvoa, jonka MVTR-arvo on yli 500 g/m<sup>2</sup>/24h, täytettävien ruokatavaroiden päällyskalvo-na/suolena.

Mikäli hakija katsoo aiheelliseksi jatkaa asian käsittelyä, tulee hänen rajoittaa vaatimukset yhteen keksintöön. Lisäksi tulee hänen vastineessaan perustella keksintönsä olennainen ero verrattuna tunnettuun tekniikkaan sekä esittää keksintönsä yllätyksellisyys, ja rajata vastaavasti vaatimukset. Lisäksi hakijalle huomautetaan, että vaatimuksia korjattaessa tulee ottaa huomioon PA 19§.

Lisäksi hakemuksen käsittelyä jatkettaessa tulee hakemukseen liittää alkuperäisen selityksen, patenttivaatimusten ja tiivistelmän suomenkielinen käännös (PL 8 § 5 mom, PM 38 a § 3 mom). Käännöksen mukana tulee seurata hakijan tai asiamiehen vakuutus siitä, että käännös vastaa alkuperäisiä asiakirjoja.

Tiivistelmä tulee samalla esittää myös ruotsinkielisenä ennen kuin hakemus PL 22 §:n mukaan tulee julkiseksi.

./. Liitteenä viitejulkaisukopiot kahtena kappaleena sekä tutkimusraportti

Tutkijainsinööri  
Puhelin:

Ia Backman  
(09) 6939 5376

Lausumanne huomautusten muodosta on annettava viimeistään viikomainittuna määräpäivänä. Jollette ole antanut lausumanne virastoon viimeistään mainittuna määräpäivänä tai ryhtynyt toimenpiteisiin tässä välipäätöksessä esitettyjen puutteellisuuksien korjaamiseksi, jätetään hakemus sillensä (patenttilain 15 §). Sillensä jätetty hakemus otetaan uudelleen käsiteltäväksi, jos Te neljän kuukauden kuluessa määräpäivästä annatte lausumanne tai ryhdytte toimenpiteisiin esitettyjen puutteellisuuksien korjaamiseksi ja samassa ajassa suoritate vahvistetun maksun, 320 mk hakemuksen ottamisesta uudelleen käsiteltäväksi. Jos lausumanne on annettu virastoon oikeassa ajassa, mutta esitettyjä puutteellisuuksia ei ole siten korjattu, että hakemus voitaisiin hyväksyä, se hylätään, mikäli virastolla ei ole aihetta antaa Teille uutta välipäätöstä (patenttilain 16 §). Uusi keksinnön selitys, siihen tehdyt lisäykset ja uudet patenttivaatimukset on aina jätettävä kahtena kappaleena ja tällöin on otettava huomioon patenttiasetuksen 19 §.

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>AH/FI991280</b>	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"><b>FOR FURTHER ACTION</b></div> <div style="font-size: small;">see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</div> </div>
International application No. <b>PCT/FI 00/00487</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">International filing date (<i>day/month/year</i>) <b>31 May 2000</b></div> <div style="width: 40%;">(Earliest) Priority Date (<i>day/month/year</i>) <b>4 June 1999</b></div> </div>
Applicant <b>Eriksson Capital AB</b>	

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (See Box I).
  
2. ☐ Unity of invention is lacking (See Box II).
  
3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing
 

☐ filed with the international application.  
☐ furnished by the applicant separately from the international application,  

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ transcribed by this Authority.
  
4. With regard to the title, ☒ the text is approved as submitted by the applicant.  
☐ the text has been established by this Authority to read as follows:
  
5. With regard to the abstract,
 

☒ the text is approved as submitted by the applicant.  
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
  
6. The figure of the drawings to be published with the abstract is:
 

Figure No.   --

☐ as suggested by the applicant.
 ☐ because the applicant failed to suggest a figure.
 ☐ because this figure better characterizes the invention.

☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 00/00487

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C08J 5/18, A22C 13/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C08J, A22C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

B51, WPI

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 9819551 A1 (KALLE NALO GMBH), 14 May 1998 (14.05.98), page 3, line 6 - line 10; claims --	1-26
X	EP 0803348 A1 (ELF ATOCHEM S.A.), 29 October 1997 (29.10.97), abstract; column 1, line 14 - line 16; column 2, line 11 - line 25; claims --	1-26
X	US 5840807 A (ALAIN FREY ET AL), 24 November 1998 (24.11.98), abstract; claims; column 2, line 10 - line 16 --	1-26
X	US 5888597 A (ALAIN FREY ET AL), 30 March 1999 (30.03.99), abstract; claims --	1-26

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

4 October 2000

Date of mailing of the international search report

16 -10- 2000

Name and mailing address of the ISA/

Swedish Patent Office

Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

Dagmar Järvman/EÖ

Telephone No. +46 8 782 25 00

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 00/00487

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 9907769 A2 (ELF ATOCHEM S.A.), 18 February 1999 (18.02.99), abstract  -- -----	1-26

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

01/08/00

International application No.  
PCT/FI 00/00487

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
WO	9819551	A1	14/05/98	DE	19645276 A	07/05/98
				EP	0935423 A	18/08/99
				HU	9904296 A	28/04/00
				PL	333052 A	08/11/99
EP	0803348	A1	29/10/97	CA	2203563 A	24/10/97
				CN	1168391 A	24/12/97
				JP	9286077 A	04/11/97
				US	6063505 A	16/05/00
US	5840807	A	24/11/98	CA	2173816 A	12/10/96
				CN	1137471 A	11/12/96
				EP	0737709 A	16/10/96
				JP	8283432 A	29/10/96
				NO	961402 A	14/10/96
				US	5888597 A	30/03/99
US	5888597	A	30/03/99	CA	2173816 A	12/10/96
				CN	1137471 A	11/12/96
				EP	0737709 A	16/10/96
				JP	8283432 A	29/10/96
				NO	961402 A	14/10/96
				US	5840807 A	24/11/98
WO	9907769	A2	18/02/99	AU	9738098 A	01/03/99
				EP	0942953 A	22/09/99
				JP	11060942 A	05/03/99